Amendments to the Specification are as follows:

Please amend the paragraph beginning on page 9, line 4 and ending on page 9, line 16 as follows:

In the drawings, reference numeral 1 indicates a receiving antenna 1, reference numeral 2 indicates a receiving antenna 2, reference numeral 3 indicates a tire at the tire mounting position T1, reference numeral 4 indicates a tire at the tire mounting position T2, reference numeral 5 indicates a tire at the tire mounting position T3, reference numeral 6 indicates a tire at the tire mounting position T4, reference numeral 10 indicates a first phase shifter ~~1~~, reference numeral 11 indicates a second phase shifter ~~2~~, reference numeral 12 indicates a synthesizer, reference numeral 13 indicates a tuner, reference numeral 14 indicates a controller, reference numeral 15 indicates a storage and reference numeral 20 indicates a varicap.

Please amend the paragraph beginning on page 9, line 17 and ending on page 10, line 8 as follows:

In the arrangement example as shown in Fig. 1, four tires are respectively mounted on the mounting positions T1, T2, T3 and T4., ~~and~~ Tire~~tire~~ air pressure sensors and transmitters for transmitting information as to the air pressure detected by the sensor, ~~both~~ are not illustrated, but are annexed to the tires 3, 4, 5, and 6, respectively. On the vehicle, two receiving antennas 1 and 2 are placed at different positions as illustrated. These two receiving antennas 1, 2 independently receive transmitting signals from the transmitters respectively annexed to the four tires 3, 4, 5 and 6. The receiving antennas 1, 2 are arranged such that a phase difference between the signals respectively received by the two receiving antennas from one transmitter is varied for each of the transmitters. In other words, the two receiving antennas 1, 2, which receive transmitting signals from each transmitter of the tire mounting positions T1, T2, T3 and T4, are arranged so that the phase difference between the inputted signals is different by tire mounting position.

Please amend the paragraph beginning on page 11, line 11 and ending on page 12, line 5 as follows:

The values of the control voltages 1, 2 to maximize the output from the synthesizer 12 can be determined in advance during the ~~on~~ design~~ing~~ stage, according to the positional relationship between the receiving antennas 1, 2 and each of the transmitters (each of the tire mounting positions). Also, it is quite conceivable to obtain, by actual measurement, the relationship between the control voltages 1, 2 and each of the transmitters at the tire mounting positions to maximize the synthesized output. Therefore, the relationship between the control voltage value and the transmitter identification is stored in the storage 15 as a table (see Fig. 14). A specific procedure for identifying the tire mounting position with the transmitter will be explained below. In summary, phases of the receiving signals are shifted respectively by the control voltages, so as to maximize the synthesized value of the receiving signals of each of the receiving antennas 1 and 2, and the values of the control voltages at this timing are compared with those in the table in the storage 15, so that it is identified from which transmitter position (tire mounting position) the receiving signals are transmitted.

Please amend the paragraph beginning on page 12, line 15 and ending on page 13, line 8 as follows:

Fig. 5 shows signal waveforms in the receiver as shown in Fig. 2, in the case where there is a signal transmission from the tire mounting position T1, and shows a process until it is determined that the signal is transmitted from the tire mounting position T1. It is assumed that the receiving antennas 1, 2 as shown in Fig. 4 are arranged so that there is a distance corresponding to half-wave length ($\lambda/2$) therebetween, viewed from the transmitter at the tire mounting position T1. Then, in step (1) of Fig. 5, when the control voltage of the phase shifter is an initial value, a phase deviation width is at the maximum as to the outputted phase shift of the phase shifter 1. That is, since signals deviated by half-wave length from each other are inputted from the transmitter, respectively into the receiving antennas 1 and 2, the phase deviation width is maximized, comparing the case where the signals are in

phase. Therefore, when the output from the first phase shifter 101 having the maximum phase deviation width and the output from the second phase shifter 112 are synthesized, the synthesized output, having been detected by the S meter, is small.

Please amend the paragraph beginning on page 13, line 9 and ending on page 13, line 18 as follows:

Next, in step (2) of Fig. 5, only the control voltage 2 of the second phase shifter 112 is raised by one step to vary the output phase shift of the second phase shifter 112. In this case, when the S meter output is monitored, the output value is lowered. In the present embodiment, a target is to find out a control voltage at which the S meter output indicates a maximum value. Therefore, the control voltage 2 is reset to the initial value, since it has been found that the one step rise of the control voltage 2 does not result in maximizing the synthesized output.

Please amend the paragraph beginning on page 13, line 19 and ending on page 14, line 2 as follows:

In step (3) of Fig. 5, under the condition that the control voltage 2 is reset to the initial value, the control voltage 1 is raised by one step. Then, the received signal at the receiving antenna 1 is substantially deviated from $\lambda/2$, and the phase deviation width becomes smaller in the output phase shift of the first phase shifter 101, thereby enlarging the S meter output. Further, in step (4), only the control voltage 2 is raised by one step. The S meter output at this timing is monitored and then it is confirmed that the S meter output becomes smaller, so that the control voltage 2 is reset to the initial value.

Please amend the paragraph beginning on page 14, line 26 and ending on page 15, line 14 as follows:

As described above, by repeating up/down variation of the control voltage 2 and rising variation by one step of the control voltage 1, it is possible to obtain each control voltage to maximize the synthesized output from each of the receiving antennas, and based on the value of each control voltage, it is

possible to determine from which tire mounting position (transmitter) the signal is transmitted. It is because according to the arrangement of the receiving antennas 1, 2, the control voltages 1, 2 which maximize the transmitting signal from each transmitter by tire mounting position are previously known as predetermined values in the design~~ing~~ process. In addition, those values can also be obtained by an actual measurement in advance. Then, a relationship between the aforementioned tire mounting positions and the control voltages is shown in Fig. 14.